

FUNCTIONAL AND RADIOLOGICAL OUTCOME OF POSTERIOR PLATE

OSTEOSYNTHESIS FOR DISPLACED TIBIAL PLATEAU FRACTURES

Abstract:

Background:

Posterior tibial plateau fractures are unstable fractures which needs to be fixed for anatomical reduction and better clinical outcome following surgical intervention and Luo 3 column classification is effective in identification of fractures and preoperative planning. Posterior plate osteosynthesis using posterior approach in supine or prone position were used alone or it combined with anterolateral plate osteosynthesis or cancellous screw fixation as per the fractures configuration for fixation. patients were followed up by using modified Rasmussen clinical and radiological criteria.

Material and methods:

10 patients with tibial plateau fractures with posterior column involvement were included in the study

Results:

All 10 patients (9 male and 1 female) are classified according to Luo 3 column classification (1 column- 3 patients, 2 column- 3 patients, 3 column- 4 patients), with mean followup of 13.7 months, none of them developed varus collapse and all fractures were united within 3 to 4 months. one patient developed deep wound infection and treated by flap cover and followed by implant exit. Clinical and radiological outcome of excellent in 40%, good in 50% of the patients.

Conclusion:

Posterior plate osteosynthesis improve the strength and stiffness of posteromedial fragment fixation and had a buttress effect preventing descent of the fragment under load and reduce the varus collapse and increase in range of movements with minimal soft tissue complications if surgery done after soft tissue condition improves.

Keywords: posterior tibial plate osteosynthesis, tibial plateau fractures, posterior column fracture, 3 column fracture, posterior approaches to tibial plateau